Yang Yang

List of Publications by Year
in descending order

201 papers	69,318 citations	1606 105 h-index	2171 202 g-index
204 all docs	204 docs citations	204 times ranked	35143 citing authors

#	Article	IF	Citations
1	Interface engineering of highly efficient perovskite solar cells. Science, 2014, 345, 542-546.	6.0	5,936
2	High-efficiency solution processable polymer photovoltaic cells by self-organization of polymer blends. Nature Materials, 2005, 4, 864-868.	13.3	5,281
3	Polymer solar cells. Nature Photonics, 2012, 6, 153-161.	15.6	4,041
4	Polymer solar cells with enhanced open-circuit voltage and efficiency. Nature Photonics, 2009, 3, 649-653.	15.6	3,015
5	A polymer tandem solar cell with 10.6% power conversion efficiency. Nature Communications, 2013, 4, 1446.	5.8	2,612
6	Solution-processed hybrid perovskite photodetectors with high detectivity. Nature Communications, 2014, 5, 5404.	5.8	2,214
7	Planar Heterojunction Perovskite Solar Cells via Vapor-Assisted Solution Process. Journal of the American Chemical Society, 2014, 136, 622-625.	6.6	2,091
8	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. Nature Nanotechnology, 2016, 11, 75-81.	15.6	1,890
9	Next-generation organic photovoltaics based on non-fullerene acceptors. Nature Photonics, 2018, 12, 131-142.	15.6	1,535
10	Tandem polymer solar cells featuring a spectrally matched low-bandgap polymer. Nature Photonics, 2012, 6, 180-185.	15.6	1,374
11	Controllable Self-Induced Passivation of Hybrid Lead Iodide Perovskites toward High Performance Solar Cells. Nano Letters, 2014, 14, 4158-4163.	4.5	1,343
12	Low-Temperature Solution-Processed Perovskite Solar Cells with High Efficiency and Flexibility. ACS Nano, 2014, 8, 1674-1680.	7.3	1,320
13	Recent Progress in Polymer Solar Cells: Manipulation of Polymer:Fullerene Morphology and the Formation of Efficient Inverted Polymer Solar Cells. Advanced Materials, 2009, 21, 1434-1449.	11.1	1,211
14	Synthesis, Characterization, and Photovoltaic Properties of a Low Band Gap Polymer Based on Silole-Containing Polythiophenes and 2,1,3-Benzothiadiazole. Journal of the American Chemical Society, 2008, 130, 16144-16145.	6.6	1,092
15	25th Anniversary Article: A Decade of Organic/Polymeric Photovoltaic Research. Advanced Materials, 2013, 25, 6642-6671.	11.1	1,055
16	Low-Bandgap Near-IR Conjugated Polymers/Molecules for Organic Electronics. Chemical Reviews, 2015, 115, 12633-12665.	23.0	1,029
17	Constructive molecular configurations for surface-defect passivation of perovskite photovoltaics. Science, 2019, 366, 1509-1513.	6.0	846
18	A Review of Perovskites Solar Cell Stability. Advanced Functional Materials, 2019, 29, 1808843.	7.8	835

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19	Single Crystal Formamidinium Lead Iodide (FAPbI₃): Insight into the Structural, Optical, and Electrical Properties. Advanced Materials, 2016, 28, 2253-2258.	11.1	781
20	An Efficient Tripleâ€Junction Polymer Solar Cell Having a Power Conversion Efficiency Exceeding 11%. Advanced Materials, 2014, 26, 5670-5677.	11.1	752
21	Investigation of annealing effects and film thickness dependence of polymer solar cells based on poly(3-hexylthiophene). Journal of Applied Physics, 2005, 98, 043704.	1.1	730
22	Bandgap and Molecular Energy Level Control of Conjugated Polymer Photovoltaic Materials Based on Benzo[1,2-<i>b</i>:4,5-<i>b</i>â€²]dithiophene. Macromolecules, 2008, 41, 6012-6018.	2.2	723
23	Synthesis of a Low Band Gap Polymer and Its Application in Highly Efficient Polymer Solar Cells. Journal of the American Chemical Society, 2009, 131, 15586-15587.	6.6	688
24	Ultra-bright and highly efficient inorganic based perovskite light-emitting diodes. Nature Communications, 2017, 8, 15640.	5.8	669
25	Vertical Phase Separation in Poly(3â€hexylthiophene): Fullerene Derivative Blends and its Advantage for Inverted Structure Solar Cells. Advanced Functional Materials, 2009, 19, 1227-1234.	7.8	650
26	Polymer-modified halide perovskite films for efficient and stable planar heterojunction solar cells. Science Advances, 2017, 3, e1700106.	4.7	588
27	2D perovskite stabilized phase-pure formamidinium perovskite solar cells. Nature Communications, 2018, 9, 3021.	5.8	575
28	Aptamerâ€“field-effect transistors overcome Debye length limitations for small-molecule sensing. Science, 2018, 362, 319-324.	6.0	570
29	Solution-processed small-molecule solar cells: breaking the 10% power conversion efficiency. Scientific Reports, 2013, 3, 3356.	1.6	542
30	High-efficiency robust perovskite solar cells on ultrathin flexible substrates. Nature Communications, 2016, 7, 10214.	5.8	534
31	Systematic Investigation of Benzodithiophene- and Diketopyrrolopyrrole-Based Low-Bandgap Polymers Designed for Single Junction and Tandem Polymer Solar Cells. Journal of the American Chemical Society, 2012, 134, 10071-10079.	6.6	530
32	Visibly Transparent Polymer Solar Cells Produced by Solution Processing. ACS Nano, 2012, 6, 7185-7190.	7.3	492
33	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 15540-15547.	6.6	490
34	Efficiency enhancement in organic solar cells with ferroelectric polymers. Nature Materials, 2011, 10, 296-302.	13.3	482
35	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. Nano Letters, 2016, 16, 1009-1016.	4.5	479
36	Bandgap and Molecular Level Control of the Low-Bandgap Polymers Based on 3,6-Dithiophen-2-yl-2,5-dihydropyrrolo[3,4-<i>c</i>]pyrrole-1,4-dione toward Highly Efficient Polymer Solar Cells. Macromolecules, 2009, 42, 6564-6571.	2.2	459

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37	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. Joule, 2019, 3, 1464-1477.	11.7	448
38	Interfacial Degradation of Planar Lead Halide Perovskite Solar Cells. ACS Nano, 2016, 10, 218-224.	7.3	427
39	Hole Selective NiO Contact for Efficient Perovskite Solar Cells with Carbon Electrode. Nano Letters, 2015, 15, 2402-2408.	4.5	412
40	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. Nature Communications, 2019, 10, 520.	5.8	405
41	The optoelectronic role of chlorine in CH3NH3PbI3(Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	5.8	404
42	A Seleniumâ€Substituted Lowâ€Bandgap Polymer with Versatile Photovoltaic Applications. Advanced Materials, 2013, 25, 825-831.	11.1	396
43	Enabling low voltage losses and high photocurrent in fullerene-free organic photovoltaics. Nature Communications, 2019, 10, 570.	5.8	377
44	Silicon Atom Substitution Enhances Interchain Packing in a Thiopheneâ€Based Polymer System. Advanced Materials, 2010, 22, 371-375.	11.1	352
45	Tuning Molecular Interactions for Highly Reproducible and Efficient Formamidinium Perovskite Solar Cells via Adduct Approach. Journal of the American Chemical Society, 2018, 140, 6317-6324.	6.6	338
46	The identification and characterization of defect states in hybrid organicâ€"inorganic perovskite photovoltaics. Physical Chemistry Chemical Physics, 2015, 17, 112-116.	1.3	335
47	A Bifunctional Lewis Base Additive for Microscopic Homogeneity in Perovskite Solar Cells. CheM, 2017, 3, 290-302.	5.8	335
48	Plasmonic Polymer Tandem Solar Cell. ACS Nano, 2011, 5, 6210-6217.	7.3	326
49	Highly Efficient Tandem Polymer Photovoltaic Cells. Advanced Materials, 2010, 22, 380-383.	11.1	320
50	Interface and Defect Engineering for Metal Halide Perovskite Optoelectronic Devices. Advanced Materials, 2019, 31, e1803515.	11.1	315
51	High-performance perovskite/Cu(In,Ga)Se ₂ monolithic tandem solar cells. Science, 2018, 361, 904-908.	6.0	314
52	Tailoring the Interfacial Chemical Interaction for High-Efficiency Perovskite Solar Cells. Nano Letters, 2017, 17, 269-275.	4.5	307
53	Make perovskite solar cells stable. Nature, 2017, 544, 155-156.	13.7	304
54	Synthesis of 5<i>H</i>-Dithieno[3,2-<i>b</i>:2â€²,3â€²-<i>d</i>]pyran as an Electron-Rich Building Block for Donorâ€"Acceptor Type Low-Bandgap Polymers. Macromolecules, 2013, 46, 3384-3390.	2.2	299

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55	Low-bandgap conjugated polymers enabling solution-processable tandem solar cells. Nature Reviews Materials, 2017, 2, .	23.3	284
56	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. Nature Photonics, 2021, 15, 681-689.	15.6	255
57	Composition Stoichiometry of Cs₂AgBiBr₆ Films for Highly Efficient Lead-Free Perovskite Solar Cells. Nano Letters, 2019, 19, 2066-2073.	4.5	250
58	Perovskite Solar Cells Employing Dopantâ€Free Organic Hole Transport Materials with Tunable Energy Levels. Advanced Materials, 2016, 28, 440-446.	11.1	249
59	Recent trends in polymer tandem solar cells research. Progress in Polymer Science, 2013, 38, 1909-1928.	11.8	246
60	Efficient Polymer Solar Cells with Thin Active Layers Based on Alternating Polyfluorene Copolymer/Fullerene Bulk Heterojunctions. Advanced Materials, 2009, 21, 4238-4242.	11.1	242
61	Tailored Phase Conversion under Conjugated Polymer Enables Thermally Stable Perovskite Solar Cells with Efficiency Exceeding 21%. Journal of the American Chemical Society, 2018, 140, 17255-17262.	6.6	235
62	Stability-limiting heterointerfaces of perovskite photovoltaics. Nature, 2022, 605, 268-273.	13.7	229
63	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. Nano Letters, 2017, 17, 4270-4276.	4.5	226
64	A Robust Interâ€Connecting Layer for Achieving High Performance Tandem Polymer Solar Cells. Advanced Materials, 2011, 23, 3465-3470.	11.1	224
65	The surface of halide perovskites from nano to bulk. Nature Reviews Materials, 2020, 5, 809-827.	23.3	224
66	Carbon Quantum Dots/TiO_{<i>x</i>} Electron Transport Layer Boosts Efficiency of Planar Heterojunction Perovskite Solar Cells to 19%. Nano Letters, 2017, 17, 2328-2335.	4.5	211
67	Transparent Polymer Photovoltaics for Solar Energy Harvesting and Beyond. Joule, 2018, 2, 1039-1054.	11.7	211
68	The role of grain boundaries in perovskite solar cells. Materials Today Energy, 2018, 7, 149-160.	2.5	209
69	Rethinking the A cation in halide perovskites. Science, 2022, 375, eabj1186.	6.0	207
70	Efficient Planar Perovskite Solar Cells with Improved Fill Factor via Interface Engineering with Graphene. Nano Letters, 2018, 18, 2442-2449.	4.5	195
71	Prospects for metal halide perovskite-based tandem solar cells. Nature Photonics, 2021, 15, 411-425.	15.6	195
72	Tandem polymer photovoltaic cellsâ€”current status, challenges and future outlook. Energy and Environmental Science, 2011, 4, 1606.	15.6	190

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73	Surface Ligand Management for Stable FAPbI3 Perovskite Quantum Dot Solar Cells. Joule, 2018, 2, 1866-1878.	11.7	187
74	Reconfiguring the band-edge states of photovoltaic perovskites by conjugated organic cations. Science, 2021, 371, 636-640.	6.0	184
75	Pure Formamidiniumâ€Based Perovskite Lightâ€Emitting Diodes with High Efficiency and Low Driving Voltage. Advanced Materials, 2017, 29, 1603826.	11.1	179
76	Verification and mitigation of ion migration in perovskite solar cells. APL Materials, 2019, 7, .	2.2	179
77	Boost Up Mobility of Solutionâ€Processed Metal Oxide Thinâ€Film Transistors via Confining Structure on Electron Pathways. Advanced Materials, 2014, 26, 4273-4278.	11.1	175
78	Shallow Iodine Defects Accelerate the Degradation of Î±-Phase Formamidinium Perovskite. Joule, 2020, 4, 2426-2442.	11.7	173
79	Narrowing the Band Gap: The Key to High-Performance Organic Photovoltaics. Accounts of Chemical Research, 2020, 53, 1218-1228.	7.6	171
80	High-performance semi-transparent polymer solar cells possessing tandem structures. Energy and Environmental Science, 2013, 6, 2714.	15.6	170
81	A Metalâ€Oxide Interconnection Layer for Polymer Tandem Solar Cells with an Inverted Architecture. Advanced Materials, 2011, 23, 1282-1286.	11.1	165
82	Crystalline Liquid-like Behavior: Surface-Induced Secondary Grain Growth of Photovoltaic Perovskite Thin Film. Journal of the American Chemical Society, 2019, 141, 13948-13953.	6.6	163
83	Rational Tuning of Molecular Interaction and Energy Level Alignment Enables Highâ€Performance Organic Photovoltaics. Advanced Materials, 2019, 31, e1904215.	11.1	162
84	Highâ€Performance Organic Bulkâ€Heterojunction Solar Cells Based on Multipleâ€Donor or Multipleâ€Acceptor Components. Advanced Materials, 2018, 30, 1705706.	11.1	161
85	Tailored Phase Transformation of CsPbI₂Br Films by Copper(II) Bromide for High-Performance All-Inorganic Perovskite Solar Cells. Nano Letters, 2019, 19, 5176-5184.	4.5	161
86	A Polymerizationâ€Assisted Grain Growth Strategy for Efficient and Stable Perovskite Solar Cells. Advanced Materials, 2020, 32, e1907769.	11.1	161
87	Multilayer Transparent Top Electrode for Solution Processed Perovskite/Cu(In,Ga)(Se,S)₂ Four Terminal Tandem Solar Cells. ACS Nano, 2015, 9, 7714-7721.	7.3	157
88	Fabrication of High-Performance Ultrathin In₂O₃ Film Field-Effect Transistors and Biosensors Using Chemical Lift-Off Lithography. ACS Nano, 2015, 9, 4572-4582.	7.3	156
89	Highly Efficient Semitransparent Organic Solar Cells with Color Rendering Index Approaching 100. Advanced Materials, 2019, 31, e1807159.	11.1	152
90	Perovskite/polymer monolithic hybrid tandem solar cells utilizing a low-temperature, full solution process. Materials Horizons, 2015, 2, 203-211.	6.4	148

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91	Integrated Perovskite/Bulk-Heterojunction toward Efficient Solar Cells. Nano Letters, 2015, 15, 662-668.	4.5	145
92	Molecular Interaction Regulates the Performance and Longevity of Defect Passivation for Metal Halide Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 20071-20079.	6.6	145
93	Single-Layered MXene Nanosheets Doping TiO₂ for Efficient and Stable Double Perovskite Solar Cells. Journal of the American Chemical Society, 2021, 143, 2593-2600.	6.6	145
94	Steric Impediment of Ion Migration Contributes to Improved Operational Stability of Perovskite Solar Cells. Advanced Materials, 2020, 32, e1906995.	11.1	142
95	Graded bulk-heterojunction enables 17% binary organic solar cells via nonhalogenated open air coating. Nature Communications, 2021, 12, 4815.	5.8	135
96	Active Layer-Incorporated, Spectrally Tuned Au/SiO₂ Core/Shell Nanorod-Based Light Trapping for Organic Photovoltaics. ACS Nano, 2013, 7, 3815-3822.	7.3	134
97	Unraveling Sunlight by Transparent Organic Semiconductors toward Photovoltaic and Photosynthesis. ACS Nano, 2019, 13, 1071-1077.	7.3	134
98	Capacitanceâ€“voltage characterization of polymer light-emitting diodes. Journal of Applied Physics, 2005, 97, 054504.	1.1	129
99	Direct Light Pattern Integration of Low-Temperature Solution-Processed All-Oxide Flexible Electronics. ACS Nano, 2014, 8, 9680-9686.	7.3	128
100	Printable Ultrathin Metal Oxide Semiconductor-Based Conformal Biosensors. ACS Nano, 2015, 9, 12174-12181.	7.3	126
101	High efficiency polymer solar cells with vertically modulated nanoscale morphology. Nanotechnology, 2009, 20, 165202.	1.3	122
102	Unique Energy Alignments of a Ternary Material System toward Highâ€Performance Organic Photovoltaics. Advanced Materials, 2018, 30, e1801501.	11.1	116
103	Efficient and Reproducible Monolithic Perovskite/Organic Tandem Solar Cells with Low-Loss Interconnecting Layers. Joule, 2020, 4, 1594-1606.	11.7	116
104	Coreâ€“Shell ZnO@SnO₂ Nanoparticles for Efficient Inorganic Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 17610-17616.	6.6	113
105	Nearâ€Infrared Materials: The Turning Point of Organic Photovoltaics. Advanced Materials, 2022, 34, e2107330.	11.1	111
106	Polarized Ferroelectric Polymers for Highâ€Performance Perovskite Solar Cells. Advanced Materials, 2019, 31, e1902222.	11.1	109
107	Surface Reconstruction of Halide Perovskites During Post-treatment. Journal of the American Chemical Society, 2021, 143, 6781-6786.	6.6	109
108	Ternary System with Controlled Structure: A New Strategy toward Efficient Organic Photovoltaics. Advanced Materials, 2018, 30, 1705243.	11.1	105

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109	Poly[4,4-bis(2-ethylhexyl)cyclopenta[2,1-<i>b</i>;3,4-<i>bâ€²</i>]dithiophene-2,6-diyl-<i>alt</i>-2,1,3-benzoselenadiazole-4,7-diyl], a New Low Band Gap Polymer in Polymer Solar Cells. Journal of Physical Chemistry C, 2009, 113, 1601-1605.	1.5	103
110	Morphology Evolution of High Efficiency Perovskite Solar Cells via Vapor Induced Intermediate Phases. Journal of the American Chemical Society, 2016, 138, 15710-15716.	6.6	102
111	Low-Temperature TiO_{<i>x</i>} Compact Layer for Planar Heterojunction Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 11076-11083.	4.0	100
112	Highâ€Performance Allâ€Polymer Solar Cells with a Pseudoâ€Bilayer Configuration Enabled by a Stepwise Optimization Strategy. Advanced Functional Materials, 2021, 31, 2010411.	7.8	99
113	Triplet exciton formation for non-radiative voltage loss in high-efficiency nonfullerene organic solar cells. Joule, 2021, 5, 1832-1844.	11.7	98
114	Combining Energy Transfer and Optimized Morphology for Highly Efficient Ternary Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1602552.	10.2	97
115	Extremely stable graphene electrodes doped with macromolecular acid. Nature Communications, 2018, 9, 2037.	5.8	96
116	A Smallâ€Molecule â€œCharge Driverâ€•enables Perovskite Quantum Dot Solar Cells with Efficiency Approaching 13%. Advanced Materials, 2019, 31, e1900111.	11.1	92
117	Hysteresis-less and stable perovskite solar cells with a self-assembled monolayer. Communications Materials, 2020, 1, .	2.9	91
118	Relating Recombination, Density of States, and Device Performance in an Efficient Polymer:Fullerene Organic Solar Cell Blend. Advanced Energy Materials, 2013, 3, 1201-1209.	10.2	89
119	Nanoscale Dispersions of Gelled SnO₂: Material Properties and Device Applications. Chemistry of Materials, 2013, 25, 4725-4730.	3.2	84
120	Sideâ€Chain Tunability via Triple Component Random Copolymerization for Better Photovoltaic Polymers. Advanced Energy Materials, 2014, 4, 1300864.	10.2	81
121	Quasi-Two-Dimensional Metal Oxide Semiconductors Based Ultrasensitive Potentiometric Biosensors. ACS Nano, 2017, 11, 4710-4718.	7.3	79
122	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. Nano Letters, 2017, 17, 5140-5147.	4.5	78
123	Hermetic seal for perovskite solar cells: An improved plasma enhanced atomic layer deposition encapsulation. Nano Energy, 2020, 69, 104375.	8.2	78
124	Hexaaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. Chemistry of Materials, 2015, 27, 5808-5812.	3.2	77
125	Co-harvesting Light and Mechanical Energy Based on Dynamic Metal/Perovskite Schottky Junction. Matter, 2019, 1, 639-649.	5.0	77
126	Interface Engineering of Metal Oxide Semiconductors for Biosensing Applications. Advanced Materials Interfaces, 2017, 4, 1700020.	1.9	72

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127	Vapor-Assisted Ex-Situ Doping of Carbon Nanotube toward Efficient and Stable Perovskite Solar Cells. Nano Letters, 2019, 19, 2223-2230.	4.5	72
128	Rational selection of the polymeric structure for interface engineering of perovskite solar cells. Joule, 2022, 6, 1032-1048.	11.7	72
129	Solid-phase hetero epitaxial growth of Î±-phase formamidinium perovskite. Nature Communications, 2020, 11, 5514.	5.8	71
130	Printable Solar Cells from Advanced Solution-Processible Materials. CheM, 2016, 1, 197-219.	5.8	68
131	Enhancing photovoltaic performance by tuning the domain sizes of a small-molecule acceptor by side-chain-engineered polymer donors. Journal of Materials Chemistry A, 2019, 7, 3072-3082.	5.2	68
132	Achieving High Efficiency in Solution-Processed Perovskite Solar Cells Using C₆₀/C₇₀ Mixed Fullerenes. ACS Applied Materials & Interfaces, 2018, 10, 39590-39598.	4.0	67
133	20% Efficient Perovskite Solar Cells with 2D Electron Transporting Layer. Advanced Functional Materials, 2019, 29, 1805168.	7.8	67
134	Efficient Tandem Organic Photovoltaics with Tunable Rear Sub-cells. Joule, 2019, 3, 432-442.	11.7	65
135	Stable and Reproducible 2D/3D Formamidiniumâ€“Leadâ€“Iodide Perovskite Solar Cells. ACS Applied Energy Materials, 2019, 2, 2486-2493.	2.5	64
136	Controlled Redox of Lithium-Ion Endohedral Fullerene for Efficient and Stable Metal Electrode-Free Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 16553-16558.	6.6	61
137	Achieving ordered and stable binary metal perovskite via strain engineering. Nano Energy, 2018, 48, 117-127.	8.2	60
138	Transparent Holeâ€Transporting Frameworks: A Unique Strategy to Design Highâ€Performance Semitransparent Organic Photovoltaics. Advanced Materials, 2020, 32, e2003891.	11.1	60
139	Surfaceâ€2D/Bulkâ€3D Heterophased Perovskite Nanograins for Longâ€Termâ€Stable Lightâ€Emitting Diodes. Advanced Materials, 2020, 32, e1905674.	11.1	59
140	Highly efficient organic pâ€“iâ€“n photovoltaic cells based on tetraphenyldibenzoperiflanthene and fullerene C₇₀. Energy and Environmental Science, 2013, 6, 249-255.	15.6	57
141	Semiconducting carbon nanotubes as crystal growth templates and grain bridges in perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 12987-12992.	5.2	57
142	Efficient Flexible Inorganic Perovskite Light-Emitting Diodes Fabricated with CsPbBr₃ Emitters Prepared via Low-Temperature in Situ Dynamic Thermal Crystallization. Nano Letters, 2020, 20, 4673-4680.	4.5	55
143	Performance-limiting formation dynamics in mixed-halide perovskites. Science Advances, 2021, 7, eabj1799.	4.7	54
144	Sequential Deposition of Donor and Acceptor Provides Highâ€Performance Semitransparent Organic Photovoltaics Having a Pseudo pâ€“iâ€“n Active Layer Structure. Advanced Energy Materials, 2021, 11, 2003576.	10.2	52

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145	Energy transfer within small molecule/conjugated polymer blends enhances photovoltaic efficiency. Journal of Materials Chemistry A, 2017, 5, 18053-18063.	5.2	51
146	Molecular engineering of side chain architecture of conjugated polymers enhances performance of photovoltaics by tuning ternary blend structures. Nano Energy, 2018, 43, 138-148.	8.2	51
147	The Original Design Principles of the Y-Series Nonfullerene Acceptors, from Y1 to Y6. ACS Nano, 2021, 15, 18679-18682.	7.3	51
148	Potassium-Presenting Zinc Oxide Surfaces Induce Vertical Phase Separation in Fullerene-Free Organic Photovoltaics. Nano Letters, 2020, 20, 715-721.	4.5	48
149	Halide Perovskites for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 1999-2011.	2.1	47
150	Realizing Efficient Charge/Energy Transfer and Charge Extraction in Fullerene-Free Organic Photovoltaics via a Versatile Third Component. Nano Letters, 2019, 19, 5053-5061.	4.5	47
151	Detecting DNA and RNA and Differentiating Single-Nucleotide Variations via Field-Effect Transistors. Nano Letters, 2020, 20, 5982-5990.	4.5	47
152	Surface Reconstruction for Stable Monolithic Allâ€Inorganic Perovskite/Organic Tandem Solar Cells with over 21% Efficiency. Advanced Functional Materials, 2022, 32, .	7.8	47
153	10.5% efficient polymer and amorphous silicon hybrid tandem photovoltaic cell. Nature Communications, 2015, 6, 6391.	5.8	45
154	Toward Highâ€Performance Semitransparent Organic Photovoltaics with Narrowâ€Bandgap Donors and Nonâ€Fullerene Acceptors. Advanced Energy Materials, 2022, 12, .	10.2	45
155	Constructing Highâ€Performance Organic Photovoltaics via Emerging Nonâ€Fullerene Acceptors and Tandemâ€Junction Structure. Advanced Energy Materials, 2020, 10, 2000746.	10.2	41
156	Influence of Fullerene Acceptor on the Performance, Microstructure, and Photophysics of Low Bandgap Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1602197.	10.2	38
157	Photocatalytic Chemical CO₂ Fixation by Cu-BDC Nanosheet@Macroporousâ€œMesoporous-TiO₂ under Mild Conditions. ACS Catalysis, 2019, 9, 8659-8668.	5.5	38
158	Low-Impurity High-Performance Solution-Processed Metal Oxide Semiconductors via a Facile Redox Reaction. Chemistry of Materials, 2015, 27, 4713-4718.	3.2	34
159	Stable and Efficient Methylammoniumâ€, Cesiumâ€, and Bromideâ€Free Perovskite Solar Cells by Inâ€Situ Interlayer Formation. Advanced Functional Materials, 2021, 31, 2007520.	7.8	34
160	High Performance Indiumâ€Galliumâ€Zinc Oxide Thin Film Transistor via Interface Engineering. Advanced Functional Materials, 2020, 30, 2003285.	7.8	33
161	The design of quinoxaline based unfused non-fullerene acceptors for high performance and stable organic solar cells. Chemical Engineering Journal, 2022, 427, 131473.	6.6	32
162	High Mobility Indium Oxide Electron Transport Layer for an Efficient Charge Extraction and Optimized Nanomorphology in Organic Photovoltaics. Nano Letters, 2018, 18, 5805-5811.	4.5	31

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163	Denatured M13 Bacteriophageâ€Templated Perovskite Solar Cells Exhibiting High Efficiency. Advanced Science, 2020, 7, 2000782.	5.6	31
164	Twisted-graphene-like perylene diimide with dangling functional chromophores as tunable small-molecule acceptors in binary-blend active layers of organic photovoltaics. Journal of Materials Chemistry A, 2021, 9, 20510-20517.	5.2	30
165	High-Performance Organic Photovoltaics Incorporating an Active Layer with a Few Nanometer-Thick Third-Component Layer on a Binary Blend Layer. Nano Letters, 2021, 21, 2207-2215.	4.5	30
166	High-Performance Organic Solar Cells Featuring Double Bulk Heterojunction Structures with Vertical-Gradient Selenium Heterocyclic Nonfullerene Acceptor Concentrations. ACS Applied Materials & Interfaces, 2021, 13, 27227-27236.	4.0	30
167	Core-shell structured nanoparticles for photodynamic therapy-based cancer treatment and related imaging. Coordination Chemistry Reviews, 2022, 458, 214427.	9.5	30
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